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Willard C. Fleming

Thoughts on Dental Education
S. Ellsworth Davenport, Jr.

Dental Education: Objective and Purpose

American College of Dentists:
Sections of the American College of Dentists.

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AMERICAN COLLEGE OF DENTISTS

Objects: The American College of Dentists “was established to promote the ideals of the dental profession; to advance the standards of efficiency of dentistry; to stimulate graduate study and effort by dentists; to confer Fellowship in recognition of meritorious achievement, especially in dental science, art, education and literature; and to improve public understanding and appreciation of oral health-service.”—Constitution, Article I.

Announcements

Next Meeting, Board of Regents: Boston, August 2, 3, 1947.
Next Convocation: Boston, August 3, 1947.

Fellowships and awards in dental research. The American College of Dentists, at its annual meeting in 1937 [J. Am. Col. Den., 4, 100; Sep. and 256, Dec., 1937] inaugurated plans to promote research in dentistry. These plans include grants of funds (The William John Gies Fellowships) to applicants, in support of projected investigations; and also the formal recognition, through annual awards (The William John Gies Awards), of distinguished achievement in dental research. A standing committee of the International Association for Dental Research will actively cooperate with the College in the furtherance of these plans. Applications for grants in aid of projected researches, and requests for information, may be sent to the Chairman of the Committee on Dental Research of the American College of Dentists, Dr. Albert L. Midgley, 1108 Union Trust Bldg., Providence, R. I. [See “The Gies Dental Research Fellowships and Awards for Achievement in Research,” J. Am. Col. Den., 5, 115; 1938, Sep.]
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AMERICAN COLLEGE OF DENTISTS

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SALUTATION TO THE DAWN

Look to this Day
For it is life, the very breath of life.
In its brief course lie all the
Realities of your Existence:
  The Bliss of Growth
  The Glory of Action
  The Splendor of Beauty;
For yesterday is already a dream
And tomorrow is only a vision.
But today, well lived,
Makes every yesterday a dream of happiness,
And every tomorrow a vision of hope.
Look well, therefore, to this Day!

—Kalidasa

1After the death of William Osler, this poem by the Indian dramatist was found among the papers in his desk. See Aging Successfully by George Lawton, published by Columbia University Press, 1946, p. 3.
MORAL COWS IN (OUR) PLUMP COMFORTABLENESS

BY THE EDITOR

There are many problems which challenge the best of the world’s resources, not the least of which resources is the dental profession. It is well to think of the profession as one of the “world’s resources” for surely such it is. It is the source of knowledge for one of the world’s greatest needs, dental health, and as dentists we contribute to the world in many ways, as people, as citizens but perhaps most of all as purveyors of health, with special reference to dental health. Members of the profession as individuals, by virtue of their education, are in positions of leadership, from which there is no escape. There are times when the desire to escape may seem to dominate the mind, but to the man of courage this desire is only transitory. He is in a position of leadership. This is a moral obligation and is in itself a moral matter. The relationship between morality and courage is thus at once apparent—no courage, one runs from his responsibility, hence no morality. Conversely, when one meets his responsibility, he strengthens his character and becomes a moral leader.

These represent the two extremes. In between is he who becomes frightened, scared, or desires security only, who tries a way of escape through neutrality. He becomes a “Moral Cow in (our) Plump Comfortableness.” The profession as a whole may experience any one of these conditions. We may try “escape.” We may try “laissez Faire.” Or we may meet the challenge as men of character, with a moral purpose and backed by courage.

It is said that the world is suffering today from a lack of moral courage. Not enough of us “stick our heads out.” Too many of us “keep our heads in.” It is easy to say “everybody does it,” then fall in line. Dentists are constantly challenged to look beyond this, not only avoiding the loss of ideas but actually developing new ones.

BY THE EDITOR

The time is here now for the development of new ideas. It will require new men but none-the-less, some older. We have gone through these years of a stupendous war. Everything has been laid aside for that. We have created nothing nor has there been anything creative, save only for war purposes with allowance for some by-products even of war, to be of value in civil life. These ideas will come to him who searches out of the past and out of the future. They must come out of the past for the present is built out of that past and the future is determined by it. It has been suggested that "it is difficult, . . . and even dangerous to outgrow the past and to enter . . . into the future. . . ." But as dentists of the United States or rather of North America, we are confronted with a great prospect of professional leadership. As we move on into it in the development of a list of the dental schools of the world and their presentation to us in some manner, we will be more and more confronted with the values of the past, and the visions of the future. The schools of other parts of the world by virtue of their environment appear older than those of America and they have that record of the past, which we must know. The schools of America are young, they have no past, hence it is the future which must be envisioned.

It is now commonplace that among other requirements, a profession must have a "tradition of group dignity." Dentistry has a little more than one hundred years of organizational history. Another hundred years or more of unorganized effort may be recorded, and even back into the Etruscan era some evidence (traditional) may be noted. Dentistry in the United States has one hundred years of the past; for all prior to that time we go to other lands. To Americans the following will be interesting; to those of other lands, it will indicate our joint task:

"Why then, ask our critics, has not the United States outstripped all rivals in the cultural fields? Why has it not produced a Shakespeare, a Beethoven, a Raphael? The answer is found in our history. We have barely emerged

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Fritz Kunkel, M.D.: Christianity and Crisis, July 7, 1947, page 3, published at 537 West 121st St., N.Y. 27.
from the stage of preparation. The passing of the frontier is still fresh in
the memory of all. We are even now forging our giant industrial system and
widening each year the margin between the worker and the bare means of
subsistence. The future—we claim the future as our own. I know that Sidney
Smith said of us a century ago: ‘Others claim honor because of things done
by a long line of ancestors; an American glories in the achievements of a
distant posterity. . . . Others appeal to history; an American appeals to
prophecy.’ But in the years which have passed since Smith made this mocking
statement, the prophecies of the Americans of his day have been fully justified.
‘Who in the four quarters of the globe reads an American book?’ he asked,
‘or looks at an American painting or statue? . . . What new substances have
their chemists discovered? Who eats from American plates? . . . or sleeps
on American blankets?’ Today this brings a smile. Yet, I venture to say,
the gibes of our present critics may seem equally amusing before the passing
of many decades.”

American dentistry has two roads to follow; that hewn out of
the achievements of the past by a “distant posterity” and that to be
hewn out of the achievements of the future, by men of today and
men yet unborn. Whereas American dentistry has been dedicated to
its own development, it is now dedicated to the proposition of bring-
ing to a common level, the output, both in men and in subject matter,
of dental educational institutions the world over. This will be from
a fraternal, social, political, economic, educational and professional
standpoint.

This task must be accomplished through two channels—research
and teaching. Both channels must be used in each case. And both
must be used. Research develops knowledge but does not of necessity
produce good teachers. Good teachers may or may not produce good
research, but good teachers are essential for that dissemination of
knowledge and for doing the personal equating demanded. A little
girl once said to her Grandpa, “Isn’t it nice to be able to read? Every-
thing just opens up.” This is the job of teachers and our job in the
years ahead.

Contemporary Thought, edited by Taft, McDermott & Jensen: (What’s Wrong
with the United States?) by Thomas Jefferson Wertenbaker, page 89; published by
American dentists and dentists everywhere must not allow "Moral Cows in (our) Plump Comfortableness."

RETURN OF DENTAL MEETINGS
JOURNEES DENTAIRES DE PARIS

Continuing our policy of assisting various dental societies over the world in their efforts at rehabilitation, it is our pleasure to announce the meeting of the above named society, to be held November 26-30, 1947, at the Orthodontic School of Paris, 5 Rue Garanciere, Paris (6°).
Traditions and customs have decreed that our educational system should be punctuated from time to time with graduation and commencement exercises. These appear regularly between grammar school, high school, and college and occasionally, additional ceremonies at the junior high school and junior college levels. Actually, these exercises do punctuate the student’s career. In some cases the ceremony is a comma indicating but a pause; in other cases it is a period signifying the end of an activity. The analogy can be carried further, and one can think of commencement exercises, in the case of the professional school, as a colon and in some instances as a semicolon, exclamation point or question mark.

All of you have endured at least two of these ceremonies, and some of you three or four of them. There is no escape. The faculty, with characteristic shrewdness, invites a commencement day speaker who is almost always an amateur, unfamiliar with the pitfalls of a commencement day address. The audience is composed of people with such mixed interest and background that the speaker must confine his subject to a discussion of the general virtues, the future or the weather. Coming from California I am denied the latter. As a consequence, the last formal talk which you will hear as an undergraduate student is such that all of the previous lectures by the faculty will appear to have been epitomes of brilliance and erudition.

The machinations of the faculty do not stop here. You will observe that in every one of these ceremonies the diplomas are never distributed until after the speaker finishes. It is, of course, obvious that this is a method of insuring the speaker of an audience. This goes along with other attendance insurance, such as, free admission tickets, free parking, and so forth. The door prizes are, of course,
the diplomas. No, there is no escape. The faculty through years of experience, and by application of both empirical and scientific methods, has devised a commencement day ceremony that must be endured. Console yourself with the thought that here at least is one lecture upon which you will not be examined.

The commencement day audience is one of mixed interest and background and the ceremony is a punctuation mark in the educational sentence. For the most part the audience consists of the faculty, the parents, and the students. To each of these groups today’s ceremony has special meaning and represents a different type of pause in the life of each. To the faculty, it is a question mark, a time for re-evaluation; to the parents it is the final period to the last sentence of one chapter in their lives; to the student it is a colon, a full pause, with the future opening ahead as the fulfillment of what has gone before.

To the Faculty the question mark is a large one. Education everywhere is being critically analyzed, and this is true in the professional schools as well. Horizons are widening every day with new information and new discoveries. It is becoming increasingly difficult to ingest and digest this new material and most difficult to pass it on to the student by those methods by which your teachers were taught.

Education in professional schools has made progress in recent years, but much of it has been made by extending the frontier of knowledge through research. Progress in the methods of imparting this knowledge to students, on the other hand, has been slow. For the most part, teachers in the professional schools are qualified professional people—above average technicians, nurses, hygienists, dentists, and physicians. Their background and knowledge of their subject is superior, but they lack experience with formal preparation in the methods of teaching.

Is not commencement day a good time to question teaching procedures? It affords the faculty the opportunity to examine the product. The raw material is much the same year after year: young people with above average intelligence, keen, enthusiastic, pliable.
If the completed product is not materially better from one year to another, one can question the efficiency of the manufacturing plant. All sorts of questions come to mind.

Are lectures being given on subjects that are better taught by group discussions? Are memory exercises required where fundamental principles should be taught? Is a laboratory course better taught by demonstration than by student participation? Are objective examinations being given when the subject is better covered by the essay answer? Are procedures for grading and methods of promotion up-to-date?

The administration, too, can well review its record. The curriculum is becoming more and more crowded. The length of time required for the undergraduate course is proving to be inadequate, and postgraduate years of study are gradually lengthening the period of preparation. This is coming to a point where the economic problem is such that selection of students is becoming limited to groups financially able to assist their children through college. This increase in the years of preparation can not go on forever. The solution seems to lie in developing more efficient methods of teaching, whereby the student can be adequately prepared in a reasonable period of time.

Other questions force themselves upon our attention. Is the curriculum frozen? Are the same courses offered year after year? Do students spend a certain number of hours in a subject because of tradition? Do the courses vary with more time for the stronger, and less time for the weaker teacher? Are instructors too heavily loaded with teaching duties and not given enough time for research? Are capable people being given enough responsibility? Is there opportunity for expression of opinion by faculty and students? How can the teaching activities of the various divisions be coordinated and unnecessary duplications avoided, and omissions corrected? Yes, Commencement Day for the faculty can well be depicted as a question mark.

*To the Parents*, this graduation day may be symbolized as a period; the end of a sentence and a chapter in your lives. The analogy is
true to some extent in graduation exercises in all schools, but is particularly apt at the graduation ceremonies of the professional curricula. Here, today, is the culmination of all of your plans and hopes, and the result of your many sacrifices. It is the day you have saved for and worked so hard to see. There may be some of you here today who have written this chapter in your child’s life without unusual planning or sacrifice, but you are not many.

Nurses, technicians, dentists, hygienists, and physicians, statistics show us, generally do not come from families of the very well-to-do. They come from the homes where security is an ever-present topic; where the next payment of the mortgage, the life insurance premium, or next month’s rent are subjects of family conference. You, their parents, have seen in the professions an opportunity to improve the social and economic status of your children, and it is to that end that your efforts have been directed.

You know, and I know, that there is not much of material goods that you can pass on to them, but you could and you have given them an education that can never be taken away. Today they will receive the material evidence of this work of yours—their diplomas. Today is the period that follows the last word in this chapter of the relationship between you and your children. You will continue to guide them, but not in their professional duties.

Today, as they take their places in the professional world, a new chapter is started in which your child becomes the principal character and you a spectator. Those of you who are not professional people may find that you are unfamiliar with some of the concepts that govern this new way of life that your children are starting.

The health workers, of their own accord, are governed by a code of ethics, by standards of their own design, which are, in many instances, different from those which guide the conduct of the world about them.

From now on the standard by which your sons and daughters will be judged is not the standard of the market place, nor the amount of their material wealth. You will see the children of your friends
and neighbors with better homes, bigger cars, and longer vacations. You may, on occasion, question the value of the sacrifices you have made to enable your child to receive this diploma today, but please remember that the success of a professional man or woman is not measured by material gains, but in terms of service to the patients and the profession they represent.

Most of you have been brought up in the business world, with the give-and-take of barter and trade, where the laws of supply and demand rule. This business world has a code of ethics of its own, and one with which you are all more-or-less familiar.

The relationship between the buyer and the seller is based on the assumption that the buyer is reasonably well informed as to the relative value of the article and is in a position to judge the fairness of the price. On the other hand, the patients of the nurse, the hygienist, the dentist, or the physician are in no position to judge the need for services or the relative value of such service. In other words, the patient is at the mercy of the professional man or woman.

Long ago medicine, the oldest of the professions represented here today, recognized this fact, and through the years has developed a code of action that is essentially the code used by the health professions today.

Your children will practice under this code. Some of its regulations may seem unusual to you. Your son or daughter cannot advertise superiority of his or her services, nor designate himself or herself by written or spoken word in such a way as to create the impression that he or she is superior to others. They cannot realize profits in the sale of drugs or instruments they may have compounded or devised. This may seem strange, but a profession has for its prime objective the service it can render.

When the profit motive becomes the prime objective, the calling is no longer a profession. Professions are small social and political worlds of their own. They have their own organizations and their own literature. They control and formulate their own educational programs; they discipline and honor their own members; their
standards are their own and they probably come closer to following the Golden Rule, than do most other groups.

Although it might appear that the professional group has isolated itself, and become cut off from every day activities of society, actually this is not the case. Along with the codes of ethics which they have devised for themselves, the health workers long ago recognized the social responsibilities which are theirs by virtue of their background, experience and training. It is the desire of the member of the true professional organization to see the service of his group used to better society as a whole, even though it may appear that members of the profession will suffer material loss.

Occasionally the business world and the professional world come into conflict. One example of this occurred in a western city in the early part of this century. Deaths of unknown origin began to occur in the Chinese quarter of that city. Unusual symptoms preceded these deaths until finally the suspicion became a fact. Bubonic plague, or Black Death, was loose in California. The medical profession immediately approached the city authorities with this information and plans for control and prevention, such as public education, quarantine, improved sanitation and so forth. The political and business interests, foreseeing the unfavorable business reaction, the loss of trade and tourist travel, refused to take action, fearing the inevitable publicity. The medical men, including those in the public health department, continued to press their action. Charges and countercharges were made, characters were defamed and loss of salaried positions followed. It was not until the insistence of the medical group was so great that a commission appointed by the President of the United States corroborated their claims and adequate action was taken. Conflicts, such as these, will arise from time to time, and you will see your children taking part.

It will be necessary to put yourselves in their places, to think as they think, and to see that the profession’s very existence is based on the value of service over material gain. You will stand behind them and be proud of them, and the professional standards which they
uphold. Never will you question the value of the sacrifices you have made to make this day possible.

To the Student, commencement day is a colon, signifying a break in his life sentence which joins two coordinated parts, the second of which explains the first. Study and improvement must continue, however, if you are to discharge the obligations you assumed when you first registered as a student.

You have worked hard here at Meharry. No one who has had to do with education in the professional fields can ever doubt the accuracy of this statement. You are probably looking forward to a period of rest and some leisure. However, like the person who has once learned to drive an automobile, and has forever lost the capacity to ride comfortably when some one else is at the wheel, so too, you will discover that days of unproductive activity will have little lure. There is so much to learn, and so much to do in a field that is forever interesting and new, that you will come to look upon your periods of leisure as opportunities for intellectual growth and development rather than periods of inactivity. These moments in your professional career will be more like the athlete's "change of pace" than complete relaxation.

Continued professional improvement will be easier for the technician, the nurse and the physician than for the dentist and dental hygienist. The former will be working in laboratories, hospitals, and clinics, directly under the observation of co-workers. One of the great driving forces in our lives is the urge to be thought well of by others. The performance of the physician and the nurse will always be open to the critical analysis of other physicians and nurses qualified to judge them. The technician's work is always open to the criticism of the physician and the dentist. They must continue their studies, if only to save themselves from criticism. On the other hand, the dentist and dental hygienist will for the most part be working within the four walls of their own offices, and will have no one but themselves in a position to criticize their efforts. They are faced with a more difficult task to keep abreast with the times.
The urge for professional improvement must come from within themselves.

Here at Meharry, the faculty has sown well the seeds of desire for self-improvement and none of you doubt the wisdom of continuous professional improvement. The acceptance of your diploma today indicates your willingness to accept the responsibilities that go with it. However, are you aware of another responsibility that is yours to assume, the responsibility that is part and parcel of any professional career? It is the responsibility of leadership. The degree you receive today puts upon you the mark of an educated person—a person who has qualified and passed a rigid discipline in the art of thinking and in the science of analysis.

It matters little to the laity that your efforts in the past few years have been devoted largely to preparation for the narrow confines of professional fields. Your thoughts and your views on all topics will be taken seriously; your remarks and your comments on the political, social, and economic problems will be considered as valid as your professional advice. Casual remarks will be taken as pronouncements based on broad points of view. Your views will be considered as sound opinions to be quoted to others. Your opinions will carry a weight you have heretofore never experienced. The mantle of leadership rests on your shoulders from this day on.

The responsibilities of leadership will come in many forms. It will be necessary to broaden your thinking and acquaint yourselves with activities in other fields. The evergrowing problem of equitable distribution of health service to all the people has its roots in basic problems of our social, political, and economic structure. It will be necessary for you to study these subjects and to discover the fundamental trends in our way of life.

The health of the people is no longer a local or community problem. It is national in scope. Time was when what happened in an automobile manufacturing plant had only local implications. Today, what happens in the automotive industry affects our entire economic structure. In a similar fashion it is no longer of local concern that
California has 79 dentists per 100,000 of population and that Arkansas has only 20 dentists per 100,000 population, or that the rural areas of our country are badly undermanned with medical men in comparison to the urban districts. These are now nation-wide problems that are related to the social, political, and economic structure of the country.

The solution of these problems goes far beyond the narrow confines of the professions, and yet the professions must assume leadership in their solution. The present generation of health workers has made some progress in seeking a solution, but for the most part they have been a generation of "fact finders." A wealth of factual information on the national health problems has been developed. It will be the responsibility of your generation to use this information to build the foundation upon which the health structure of this nation will be formed. This responsibility can be discharged successfully only by the development of broad interests and a capacity for leadership in the men and women graduating from professional schools today.

You have spent many years, and will continue to spend many more, preparing yourselves to meet successfully your professional responsibilities. It is not news to you that continued professional improvement will be part of your life. However, what may be new to you is a realization that you have suddenly been thrust into a position of leadership among your family, your friends, your neighbors, and now, your patients. Many of you are not prepared for this position, and only a few of you will welcome it. The fact remains, it is a part of your life from now on. You will have to prepare to discharge this responsibility as seriously as you must study to meet your professional obligations.

It will not be possible for you as an individual to prepare yourself as an authority on the social, economic, and political aspects of the world today. But what you can bring to these problems is the results of your professional education, namely, the ability to think logically, to reason from fundamentals, and to apply basic principles
to the problem at hand. You have learned there are many problems that do not have immediate solutions. You have developed a tolerance for the ignorant and the emotionally unstable. Most important of all, you have learned that cause and effect do not always have the clear cut relationship you once thought them to have. To the laity a tubercular germ causes tuberculosis; the cause is the germ, the effect is the disease. To you, the problem of tuberculosis lies not so much in the germ, but in the question which we ponder: "why do we not all have tuberculosis?" What is the constitutional difference between people which enables one to resist the disease and the other to be afflicted? What part do environment, heredity, and the emotions play in this problem? How can these basic problems be employed to combat this disease?

And so, in this world about us is to be seen poverty, ignorance, and intolerance. To many, the causes of these conditions are readily apparent. To one who has devoted time in study, and has had even limited experience, there are many factors involved—factors, more fundamental and more difficult to diagnose and treat.

Here, at Meharry, your education and training have taught you to search beyond the "apparent etiology" for the basic causes. It is in this way, that you can discharge your responsibilities of leadership. This can be accomplished by correct diagnosis, by solution of fundamental problems and by rational therapy in a world still trying to cure its ills through empiricism.

The charlatan and the quack, the emotionally unstable and the ignorant, are urging this panacea and that panacea for the ills of the world. It is a time for rational thinking and a study of the fundamental issues involved: a time for adequately prepared men and women to assume leadership. It is fortunate that you are so prepared. It is essential that you be willing to assume this leadership.
THOUGHTS ON DENTAL EDUCATION
S. ELLSWORTH DAVENPORT, JR., D.M.D.¹
New York City

FOLKLORE

Once upon a time in a far away country there lived a princess who was known and adored because of her beauty, her gorgeous figure, her smooth velvety skin, her vivacity, her happy disposition and her unquenchable enthusiasm. Her name was “Health.”

In a neighboring kingdom lived a prince, tall, dark and handsome, whose exploits were widely acclaimed and who seemed to derive his greatest joy and satisfactions from studying the needs of his subjects and alleviating their ills and suffering. Very properly the name of this prince was “Service.”

By fortunate circumstance and the guidance of a fairy godmother, these two met one soft, mellow day and immediately each was impressed with the other. As their acquaintance ripened into friendship, came the realization that each needed the other badly, throughout life. And so one Sunday morning they walked down the aisle and were married and each pledged to the other that the welfare of their people would be their chief concern and that while alone the attainments of each had not been perfection, working together they could accomplish wonders and thus the world would be a better place in which to live.

Time passed and several sons and daughters were born of this desirable union, but like all children they varied in their wishes, their pastimes and their pursuits. The eldest boy, who was christened “Medson,” very early in life developed a strong desire to cure diseases of the body and mind and being a studious lad, he applied himself toward understanding nature and discovering the reasons and causes for things. He watched the habits of the ants and the birds and the bees and pondered over what he saw. He studied the elements and the rocks and the tides and meditated, for he felt that therein lay the answers to many problems and eventualities.

¹Presented to the New York Section, American College of Dentists, May, 1946.
Medson consulted often with his parents, Health and Service and in general followed their advice. Moreover, he conferred with the wise men and the interpreters of dreams and often he prayed to the God of the Universe to ask for the keys to the Book of Knowledge and the capacity to retain its secrets.

As time went on his ability to alleviate and to heal suffering increased and he became one of the most honored and sought after young men in the kingdom. The association of Oracles and Master Minds bestowed its blessing upon him and presented to him one of its most treasured possessions, the horse of knowledge, called M.D., which was supposed to be able to carry him over any obstacle, even over the gates of Heaven.

In spite of his success and his honored position in the country, life was not all roses and honey for Medson, for he began to realize that there were many unexplained mysteries and many diseases for which he did not know the cure. In an effort to overcome some of these difficulties, he invited other serious minded young men to become associated with him and he instructed them to delve into the mysteries of life and to organize a foundation for therapeutic research.

His parents, Health and Service, took great pride in the accomplishments of their wonderful son and rightly so, since the people of their combined kingdoms were improving physically and mentally, and not only did that improvement bring happiness and prosperity, but also power and success which far outstripped all other countries.

Some of the wealthy tycoons and barons were so impressed that they contributed large sums toward a fund for therapeutic investigations and one or two radicals had the temerity to suggest that some day it might be possible not only to alleviate pain and cure disease, but perchance, to prevent it. A large castle was purchased and the finest equipment obtainable was installed.

Years passed and Medson’s fame increased until he became known throughout the four corners of the earth and on his good horse
M.D., he would travel to the homes of the rich and the poor alike to heal their infirmities and advise them about their physical and mental woes. Emissaries came from foreign lands to consult with him and his associates and to study their methods and watch their research investigations.

Hospitals were established for the care of the sick and the low in mind, and many fine young women, inspired by the example of their sovereigns Health and Service, dedicated their lives to the care and encouragement of patients. They even visited the homes of the poor to give advice and instructions about hygiene, exercise, diet, sleep and ills resulting from over-indulgence in food, drink, drugs and the pursuits of sex.

About this time, although Health and Service were getting on in years, their youngest son was born and they christened him "Dentson." He too, was a bright lad and almost from his cradle he gave evidence of remarkable digital dexterity. As he grew a little older, Dentson showed himself to be a practical youngster and he would sit by the hour playing with tools.

Very naturally, Dentson grew to worship his brother Medson and his remarkable accomplishments. He stood in awe of the wonderful horse M.D. and one of his fondest secret hopes was that some day he too might be allowed to ride him.

As Dentson grew from babyhood to youth, he began to wish that he could assist his famous brother Medson, but due to his youth, no one paid much attention to his timidly expressed desire. However, he was of serious mind and a true son of Health and Service so he decided that when he grew up he would fit himself to contribute to the welfare of the people. Gradually, the conviction grew in his mind that there was one field which was being almost neglected by Medson, his associates and the scientific potentates who were directing the investigations in the Rockeigie Institute, as it had come to be called; he realized that nothing was being done for the care of the teeth except to extract them to relieve a swollen jaw or if pain became unbearable.
Dentson decided therefore to devote his life to this field of endeavor and to study with that end in view in order to equip himself to minister to mankind and to become a son worthy of his parents. Being human, he admitted to himself that to some extent he was actuated by a natural desire to acquire fame and fortune and to be recognized as a necessary associate of his brother Medson.

When one day Dentson timidly confessed his hopes and desires, his famous brother laughed at him and told him that his field was a relatively unimportant one and that while it might require mechanical skill and deftness, certainly it would not need much wisdom or scientific knowledge or even any great amount of preliminary education. For the time being, the boy accepted this analysis. However, it only served as a check upon his hopes and ambitions. He made a collection of teeth and devoted much time to the further development of mechanical skill in their repair. He convinced himself that with proper care many teeth could be saved and he began to wonder how to cure and even prevent swellings, decay and unsightly fractures.

Health and Service gave Dentson no little encouragement, more perhaps because he was their baby than for any other reason. They did arrange too for some education and they even permitted him to make occasional visits to the Rockefeller Institute to watch some of the wonderful experiments. Finally he was allowed to treat teeth and as his work was accepted as being of some slight importance, and requests for his services became more frequent, The Association of Oracles and Master Minds took notice and rather grudgingly gave him a couple of ponies called D.D.S. and D.M.D. respectively, so that he too might accomplish more.

Medson was tolerant and somewhat amused, as his baby brother grew up and he even condescended to consult with him on occasions, a development which thrilled Dentson to the soul of his being. However, as he began to be recognized, Dentson found that while he was tolerated as the son of Health and Service, he was not accepted in the scientific conclaves because of his youth, his lack of knowledge,
the general inadequacy of his education and the widespread feeling that his field of endeavor was mechanical and a trade rather than a profession.

This situation irritated and nonplussed Dentson and he tried to overcome it by handbills and advertisements until he realized that these methods were undignified and lowered his standing in place of raising it. In a subdued frame of mind, he decided that if ever he were to be accepted as a professional man, he must deserve such recognition and must rise above the level of the mechanic and the craftsman.

He studied assiduously and persuaded one or two of his brothers and others to work with him on research problems in his chosen field. Gradually, as the years went by Medson and his scientific confreres reluctantly began to admit that the mouth was the gateway to the body, that the condition of the oral cavity and the teeth not only was important, but a definite factor in promoting either healthy or diseased minds and bodies, that the scope of prevention and research was unlimited, and that the long neglected field of dentistry was a component part of medical art and science after all.

Naturally, Dentson was overjoyed that he and his associates had made so much progress. He was now not only tolerated by Medson, but frequent discussions and consultations took place which were of mutual benefit and also contributed in no small degree to the welfare of the people. On a few occasions he was allowed to achieve one of his most coveted ambitions by receiving permission to ride the noble horse M.D., in addition to his ponies D.D.S. and D.M.D. The parents, Health and Service, were delighted for never had their people been so happy and well, and they hoped that with complete cooperation between Medson and Dentson, not only a comparative few, but every person in their lands might be cared for. Enlarged facilities for Dentson and his associates were provided, their participation in the Rockeigie Institute was hesitatingly pondered, and they in turn began to understand more fully the significance of the Golden Rule and the meaning of full service to mankind.
Just as the future seemed to be unfolding in glorious fashion, a cloud appeared on the horizon. Medson, conscious of his own prominence and importance, began (in the vernacular of those old days) to "throw his weight around." He sought out Dentson and said:

"My boy, I am proud of you, you have advanced a lot and I must admit that you are necessary to the well-being of the world. I am going to pay you a great compliment. I will take you under my personal supervision, for with the right kind of guidance and education, some day you will really amount to something.

"From now on your work will be a department of my profession. The Rockeigie Institute has voted to provide the funds for your instruction. I was wrong in urging you to stress digital dexterity and mechanical perfection to the extent that I did. Instead, you will be given a reasonable training in all branches of my profession and you will be permitted to ride my horse M.D. on frequent occasions. From now on, you will be one of us. Don't thank me, I think I can understand how gratified you must be."

At first Dentson was overwhelmed with joy. At last he had arrived. He would develop under Medson, learn what he was taught, and do what he was told. He told his faithful associates the good news and then rushed to the study of his parents, where as always they were planning and developing improved conditions for their people.

Health and Service listened attentively and deliberated at length. Finally they said to Dentson:

"Son, you are our baby, you have come along wonderfully, but you have not yet begun to approach your fullest development. Your brother is a great man and he has paid you a remarkable compliment, but he does not quite understand.

"The field embraced by Medical Science is so broad and the specialties of medical practice are so many and so varied, that dentistry will develop and mature more satisfactorily and more thoroughly if, while permitted close and friendly cooperation with medicine, it is allowed complete autonomy and freedom of action.

"The possession of the M.D. degree and all it signifies is a valuable
THOUGHTS ON DENTAL EDUCATION

Attainment for any professional man, but it is not an essential for a general practitioner of dentistry.

"Continue to study, to develop in the field of research, to absorb much medical knowledge, to consult frequently with your medical confreres, but always remember that digital dexterity and mechanical skill are just about as necessary as you always thought they were.

"Comparatively little useful knowledge can be retained unless it is utilized in practice and it is wiser to practice within one's own field.

"Preserve and strengthen the independence of dentistry as a Health-Service Profession and not as a department of medical practice.

"In that way and only in that way will you justify and fulfill your birthright."

Note: The future must determine what decision was arrived at by Dentson. He is still meditating.

Now, for a few more "Thoughts on Dental Education" which are justified as the moral of the story just told.

DENTAL EDUCATION

Dental Education of the future must be determined by and founded upon many basic factors and needs, some of which are as follows:

1. Dentists must be equipped to serve mankind in far larger measure than in the past or present.

2. The cause of dental caries must be determined and ways and means of preventing and conquering dental and oral disease, and of maintaining health and function within the oral cavity, must be developed.

3. We must assume without question that dentistry is part of medical science and that its scope and field of action have just as much relation to physical, mental and spiritual health as has any other region of the body.

4. We must develop among the peoples of the earth the realization that dentistry is as much an honored profession as any other division of medical science.

5. Our professional attributes must be such as to attract the highest type of young men and young women, intellectually, mor-
ally and culturally, and who themselves manifest ideals which visualize clearly his or her duty to civilization.

6. We must produce graduates thoroughly equipped to fulfill the destiny of the dental profession of the future.

To bring about these possible attainments, there exists a wide divergence of opinion regarding methods and means. Here are some random thoughts, which may eventually be worked into a general pattern:

1. Universities should create Schools of Health Service, with medicine, surgery, dentistry, nursing, etc., as component departments.

2. Medicine and dentistry need each other badly. There should be the very closest cooperation and understanding between them. Mutual respect should be increased, each for the other and each should encourage and supplement the other in its chosen field. It should be realized, however, that each will develop and mature more satisfactorily and more thoroughly if both are allowed complete autonomy and freedom of action.

3. Dentistry should be recognized and established as a part of medical science and art, but not as a speciality of medical practice.

4. Preliminary education of students planning to study dentistry should be essentially the same as that required for students planning to study medicine.

5. Eventually, but perhaps not immediately, all candidates for admission to Schools of Dentistry should possess a Liberal Arts Degree.

6. Instruction and training of medical and dental students in the basic sciences should be identical.

7. Technical training of dental students should be stressed meticulously and not superseded by courses in comparatively unrelated medical specialties that can have no lasting or practical use in the practice of dentistry. Any knowledge of medicine is valuable, but "a little knowledge is a dangerous thing" and it will not be retained adequately unless it is utilized.
8. An intimate knowledge of the materials to be used in the practice of dentistry is essential.

9. Research is the greatest need of the future, with Public Health Service next in importance. Programs of research and Public Health must be initiated, stimulated and developed as never before.

10. Undergraduate and postgraduate courses in subjects (such as diet, organic function, internal glands, general infection, stomatitis, syphilology, etc.) which are equally important to students of medicine and dentistry should be amplified and broadened as far as possible.

11. Teachers should be chosen from among the top men of their respective professions, men with the highest concepts and ideals.

12. A broad concept of "Dental Health as a National Asset" should be nurtured and developed in the minds of dental students, along with a full appreciation of their obligation to mankind. They must understand and support the fundamental premise that dentistry is a Health Service Profession.

13. In the future there must be more dentists instead of less and these dentists must be fully qualified and better educated—not makeshift members of an "Assembly Line."

14. The dental profession must gear itself to meet the needs of rural communities as well as those of towns and cities.

15. In its desire to make dentistry increasingly attractive to the very highest type of individual, dental education must shun any tolerance for socialization of the profession in the future. It must continue to uphold the private practice system with its opportunities and its independence, remembering always that socialization is applauded by the lazy, the stupid, the unequipped and the unsuccessful. As in all regimental programs, socialization pulls the ambitious, the energetic and the well educated back to the level of the others.

16. On earth, God calls upon us and chooses us as his representatives. He uses our eyes to look at the needs of the world, our feet to reach the various areas of need and our hands to bless and soothe humanity and heal its wounds. May we not fail Him.
DENTAL EDUCATION: OBJECTIVE AND PURPOSE

Continued from the March issue of the Journal, p. 37; reference may be made to pp. 7 and 12 for further details. (Ed.)

Presentation of Schools of the United States

UNIVERSITY OF INDIANA

College of Dentistry

M. K. HINE, D.D.S., Dean, Indianapolis

Faculties of dental schools can assume in addition to an undergraduate teaching program at least five other correlated functions: graduate training for dental specialties, post-graduate training for practitioners, training of auxiliary dental personnel, conducting an active research program, and service directly to the public in many ways, including cooperation with public health authorities. Of course the primary objective of dental education is to produce competent dentists.

The term “competent dentist” has not yet been given a universally accepted definition, so the paths to be followed to fulfill this primary objective are not too clearly demarcated. As the application of most dental therapeutic procedures is mechanical in nature, the well trained dentist must understand and master the multiple technics of dentistry: it is logical as well as traditional that dental faculties have placed much emphasis upon the development of skills. Dental education, however, should not be merely a palimpsest of technic upon technic or dentists will become mechanics sentenced to endless monotonous repetition of more or less complex mechanical operations.

We believe dental faculties should emphasize the teaching of
“principles” as well as “methods”; they must insist that the student have a usable, broad, comprehensive background of basic biological and physical science which he may employ to study the causes of dental disorders, and cope with the unknown developments of the future. No one believes for a moment that a dental faculty can teach all students everything known about dentistry in four years; even if it were possible, continued advances which will be made would leave the student uninformed if he did not have the basic knowledge and the inclination required to continue to progress.

A well trained dental student, then, is one who has a keen appreciation for the importance of exacting dental technics, who has the background to become competent in the diagnosis and treatment of oral disorders and who understands the methods involved in preserving and promoting oral health. In addition to knowing the technics and methods devised by others, he should comprehend the scientific basis on which these techniques are built, so that he may understand, evaluate and perhaps aid in the development of new methods of therapy.
The dental schools of today are faced with a great challenge. For some time the opinion has been held that there are too few dentists to meet the needs of the American public and that the dental schools should increase their enrollment and the number of their annual graduates. Until recently the enrollment in most schools has been less than their maximum capacity. This has been due to the fact that too few students were applying for admission to dentistry. Too few of our American youths realized the opportunities which were open to them in the study and practice of dentistry and for many who wished to undertake it the cost of dental education was too high.

With the close of the war the educational privileges offered to
veterans have resulted in a great influx of applications to all dental schools, far greater than can be accommodated. Dental schools now may serve, to the extent of their capacity, to produce larger numbers of new dental graduates and, what is even more important, the number of applicants affords the opportunity of selecting a student body that is scholastically competent to undertake professional education and practice. This should result in not only greater numbers of dentists but also higher standards of dental education and of dental practice.

MEHARRY MEDICAL COLLEGE
College of Dentistry
CLIFTON O. DUMMETT, D.D.S., Dean, Nashville

A greater number of better dentists are needed to cope with the demands for dental service. It is the responsibility of dental education and therefore of the dental teacher to train these dentists. The dental teacher must see that the student is taught those academic and technical subjects necessary for the training of good dentists. He must also convince his students of the indispensability of “professional ethics.”

Future dental teachers should be better prepared educators than those who previously have selected dental pedagogy as a career. Few of these have begun their dental teaching with any knowledge of modern educational principles. The result has been a decrease in the quality and quantity of graduate dentists. The success of the profession depends on the adequate training of dental teachers, who in turn should be convinced that devoting their
time to teaching is as important an occupation as is the practice of the profession. The present teacher salary scales do not foster such an impression. Recently an outstanding educator declared that unless the salaries of school teachers are doubled, the present acute teacher shortage will continue and disastrous educational conditions will prevail. Administrators must insure Dentistry’s future by correcting such situations.
The dental educational program has broadened greatly during the last two decades. The increasing responsibility of the dentist in the field of health service demands a broad cultural and scientific background to enable him to assume his obligations in the civic and professional circles in which he will move. Professional men must be trained to live "in" society rather than "off" of society.

In a survey of the field of dental education made by an able body of educators in recent years certain objectives were set up as essential
for the training of young men for the dental profession. I can think of no better statement covering the objectives of dental education. The aims of these objectives are—

1. The dental student must be trained to be competent in the maintenance of oral health and the treatment of oral diseases, with understanding and appreciation of the relationships between oral and systemic conditions in health and disease.

2. He must be trained to cooperate effectively with persons engaged in allied fields of health service.

3. He must have interest in, and desire for continuing, professional study after graduation.

4. He must be trained to practice dentistry with due regard for its social, economic, and ethical relationships.

5. He must be trained to cooperate effectively in community life.

**TUFTS COLLEGE**

*College of Dentistry*

BASIL G. BIBBY, B.D.S., Ph.D., D.M.D., Dean, Boston

Aims and objectives of Tufts College Dental School:

To train graduates who will practice dentistry intelligently.

To give students a realization that continuous and lifelong study is a necessary part of a scientific profession, to stimulate an interest in professional study and to provide the tools by which such study can be made effective.

To teach sound mechanical principles and technics, to provide a full understanding of the dignity of the mechanical art, and to bring to the students an active realization of the
satisfactions resulting from high-grade technical accomplishment.

To raise the intellectual content of the instruction in the mechanical and clinical phases of dentistry to a point where they will be stimulating to intelligent students and be entitled to a respected place among university courses.

To increase the efficiency of dental instruction by unifying scientific, technical and clinical training, thus making the curriculum as far as is possible an integrated functioning unit.

To encourage a consideration of the problem of providing the widest possible spread of high-grade dental services.

To kindle the realization that membership in a profession imposes responsibilities for social leadership of the widest sort.
In the last few decades, dental education has made great progress. So engrossed have we been, however, with the correlation of the technical phases of dentistry and their biological fundamentals that unwittingly we have impeded progress by our disregard of man's paramount problem—living.

Even though we graduated all our students with a thoroughly scientific state of mind, a sound groundwork in basic sciences, a complete knowledge of technical dentistry, and a masterful development of their manual skill, we could claim to be no more than good teachers, not educators.

Educators exert greater influence. While they teach their subject matter thoroughly, yet, by suggestion and example, they also, in a subtle way, arouse in their students a desire and appreciation for a more satisfying way of life.

The ideal of dental education would be to prepare conscientious and competent members of the dental profession who at the same time are active in the civic, social, intellectual and spiritual life of the community. To attain this objective, they need a broad outlook, a sound philosophy of life; and a sense of social responsibility—in all of which the teacher should be the motivating force.

While we teach our students to do things well, we must also put fun and satisfaction into their labors. Happiness is needed; and happiness springs from a man's own breast. If we instill in our stu-
DENTAL EDUCATION: OBJECTIVE AND PURPOSE

Dents an appreciation of ethics and esthetics as well as a knowledge of science and professional skill, they will perform their life's work with greater satisfaction and contribute a greater service to mankind.

UNIVERSITY OF DETROIT
Professional study requires a type of education commensurate with the responsibilities of professional practice. The practice of dentistry, today, is recognized as a very important branch of health service, demanding of its practitioners training comparable to that of any practitioner in a specialized field of medicine. It is imperative in the conservation of human life that the dentist be no less informed in the basic medical sciences and the pertinent fundamentals of medical practice than the oto-laryngologist, the ophthalmologist, the dermatologist, or many of the other specialists in medicine. The means by which this training is brought about is of less importance than the desirability of developing dental graduates thoroughly grounded in those fields of science which are applicable to the control and conservation of health. The widening responsibilities of dental practice and the newer concept of what constitutes adequate dental training has impelled a few universities to amalgamate their schools of dentistry with the schools of medicine. This has resulted in a generally unfavorable reaction throughout the dental profession because of the fear of loss of autonomy. If we are to retain autonomy and still meet the challenge of modern health service the pattern of dental education must be altered to place more emphasis upon the biological framework even though this results in a reduction of time devoted to certain courses of instruction which are designed primarily to
develop technics and skills. Once the dental student has grasped the fundamentals involved in the various technics and has reached a reasonable stage of competence in their application, needless repetition of laboratory exercises might be eliminated to provide more curricular hours for the study of the various diseases, their causative agencies, the changes which they produce in structure and function, and the methods of identifying these causes and changes. More general use of hospitals as teaching centers during the clinical years is desirable by providing intimate contact with the various medical services in the wards and out-patient departments.
The problem of providing more dental care for more of the American people is very difficult and complex. One of the most effective attacks that can be made on the dental health problem, is to provide more persons qualified to treat and to prevent dental diseases. This is the function of the forty dental schools of the country and all of them have been increasingly concerned with the shortage of dental personnel that became most acute during the war years.

The trend has now been reversed, and dental education finds itself faced with the greatest responsibilities and finest opportunities than ever before in its history. It is estimated that for the next eight or ten years more applications for dental study will be forthcoming than can be cared for by present facilities. Such a condition presents dental education with the wonderful opportunity of selecting those students who are most properly qualified for the exacting tasks required of the dental practitioner.

It is gratifying to note the interest being portrayed by dentistry in programs of vocational guidance. Numerous pamphlets and the proposed mental and aptitude testing program recently announced by the Council on Dental Education of the American Dental Association will be of great assistance to dental education in the selection of those best qualified.

Dentistry looks to the dental schools of our country for an ade-
quate supply of well-trained dentists, and unless that supply is forthcoming, the inevitable result will be inadequate provision for the dental health of the public.
That dentistry is an important member of the group of health service professions must always be kept in mind. The preservation of oral health must be our ultimate objective.

Since the dental schools determine who shall study dentistry, the membership of the profession is the direct responsibility of the schools. Therefore, the selection of dental students is perhaps the most important single step in dental education.

A graduate of a dental school must be ready to assume the responsibilities which the practice of den-
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Dentistry imposes. For this reason the dental student should receive as much instruction in clinical dentistry as is compatible with adequate pre-clinical training in the basic sciences.

Research in dentistry and related fields has resulted in important advances in our profession in the past twenty-five years. The schools must be alert to the importance of including the results of significant researches in their curricula.

The clinical application of basic science knowledge raises the quality of dental service and contributes to professional bearing. However, as yet, in the clinical treatment of oral diseases there is no substitute for highly trained technical skill. Until the prevention of dental disease becomes a reality, the dental school’s responsibility requires that its graduates be equipped to serve the public equally as a scientist and as a technical expert.

ST. LOUIS UNIVERSITY
College of Dentistry
L. R. MAIN, D.D.S., Dean

Ideals and inspiration are two important words in education. Some ideal must be held before the student as a guide or incentive, then to inspire the student with a deep desire to approach or to achieve the ideal is part of our responsibility in dental education.

The undergraduate must become imbued with the fact that dentistry is a health service and he must appreciate the necessity of healthful dentistry. The ideal dentistry to practice is of course prevention, and preventive dentistry cannot be stressed too strongly.
Restoring the lost organs of mastication is the major task of the dentist, therefore training in this phase of the work is essential. The education of the dental student in the general principles of medicine and dentistry is rightly emphasized, but he must also be trained in the art of dentistry. It is however, just as important for the student to understand the value of a diagnosis, because fine mechanical dentistry on unsound foundations is a stroke against dentistry as a health service.

The proper integration in all teaching is essential if we develop well trained as well as an educated graduate.
Northwestern University Dental School attempts, within the limit of its physical and financial resources to offer a complete program of dental education, to foster pure and applied research, and to promote the advancement of dentistry as a health service profession.

The primary purpose is the adequate education and training of students to become dental practitioners, and we subscribe in general to the objectives of undergraduate study in dentistry as published on page 64 of "A Course of Study in Dentistry."

We interpret the objective to mean that at the completion of the course the student should be sufficiently prepared to employ satisfactorily the methods of diagnosis and remedial treatment generally approved in the practice of dentistry. In addition he should have a basic scientific education sufficient to prepare him to comprehend, to evaluate critically and to adopt new knowledge and new procedures.

His attitude should be scientific and professional, and he should be competent to cooperate with other health service professions and recognize the social responsibilities of his professional position.

Graduate and postgraduate study is supported and encouraged, with the emphasis on graduate education as a more fundamental responsibility of the Dental School. The aim is to train men for teaching and research, and for the special knowledge and skill essential in the practice of a specialty. The development of the scientific attitude of mind and the research point of view among those selected
for this additional training is emphasized with the objective of introducing into the professional body a larger number of men with these attributes.

Research is encouraged in all departments and is brought into the daily teaching of undergraduate and graduate students. We consider it essential to faculty morale, for the intellectual and scientific development of individual members of the faculty, and a necessary part of the contribution of the School to scientific and professional advancement.

Contributions to scientific dental literature are also considered a responsibility of the faculty, as well as participation in scientific meetings of professional groups.
DENTAL EDUCATION: OBJECTIVE AND PURPOSE

WASHINGTON UNIVERSITY
College of Dentistry
OTTO W. BRANDHORST, D.D.S., Dean, St. Louis

A real challenge faces dental education. The post-war era has brought with it great responsibilities as well as enlarged opportunities in the field of education, and dentistry is no exception. In fact, it appears as if the demand for health service will for some time exceed availability. To meet the challenge will require careful planning lest some of our gains in quality be sacrificed to quantity production.

Dental schools must be prepared to offer an ever broadening educational program, one including thorough undergraduate training and also opportunity for post-graduate and graduate study.

Washington University School of Dentistry is committed to such a program and accepts the challenge with confidence.
The Harvard School of Dental Medicine is now reorganized on the basis of a four-year curriculum leading to the D.M.D. degree. The first class graduated on June 5, 1947. Students spend two years in the Medical School taking full length courses in the preclinical sciences and in all other subjects studied by the first and second year medical students. After completion of the dental course, Harvard graduates will, therefore, be able to obtain a medical degree in two additional years. Transfer from Dental Medicine to Medicine before graduation is not allowed.

Within the clinical course, an effort is made to cut down where possible on preclinical benchwork. The seminar method replaces much of the teaching formerly done by lectures. Opportunities are made for students to participate in research projects. Individual instruction at the chair occupies more time than formerly. For these reasons and because of current limitations in the preclinical classes, students are restricted to fifteen in each class. Graduates are expected to be as nearly ready for the practice of dentistry as are graduates of other schools.

A rebuilding of the School allows much increased laboratory space which is devoted to a research program centering on such basic subjects as endocrinology, nutrition and dental histopathology. Cooperation with the Medical School on this program is close.

The administrative organization of the School remains virtually unchanged since 1899. The dental staff now has a larger representation on the Faculty of Medicine than was the case before the recent reorganization.
Dental Education is the beginning of Dentists and Dentistry. Dentistry of tomorrow will be largely influenced by the kind of work done by today's admissions committees and the faculties of our dental schools. A primary obligation of Dental Education is to attract good citizens as students of dentistry and to graduate better citizens. Without good citizenship the fabric of the profession—and indeed the nation—rots. To do a good job in Dental Education a dental faculty must make each hour of teaching and study justify itself in terms of character building, or toward service rendition, or both.
Dental schools of today are rapidly assuming their places as centers of learning of culture and continued education. Our young students of today and tomorrow who can look back to their undergraduate days and recognize therein a broad based education with sound principles upon which to continuously build knowledge and skill will want and need to be with us again to increase their usefulness and ours. How well we meet these newer and refined obligations will measure our worth in the scientific and cultural procession of accomplishments.
The function of under-graduate dental education is the training of young men and women to administer to the oral health needs of the public and to contribute directly to the social and civic welfare of the community. It is the responsibility of the dental school to concern itself with the development, in the student, of certain desirable qualities of character and leadership as well as to train him to be competent to begin the practice of dentistry. Moreover, the student should be imbued with the idea that graduation from a professional school marks the beginning rather than the end of learning.

The almost complete absorption of dental schools by universities testifies to the fact that dental education has won a place among the higher branches of learning. But the affiliation of a dental school with a university does not insure that the educational program of the dental school meets the tests and standards of university discipline. Such affiliation is not justifiable unless the ideals and practices of dental education harmonize with those of higher education. Dental education on a university level is possible only when dental students are selected on the basis of their preliminary education and their fitness to engage in dental study; and when dental teachers are selected on the basis of their general education, advanced training, ability to teach, interest in research and sympathetic understanding of the whole problem of dental education.
UNIVERSITY OF LOUISVILLE
AMERICAN COLLEGE OF DENTISTS

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BOOK REVIEWS


The Genesis of Dental Education in the United States, by Van B. Dalton, D.D.S. This book of 216 pages including a bibliography but no index, is a very interesting story of the early days in dental education and all that the words may include in the United States. It is written with particular reference to dentistry in the State of Ohio and ultimately the birth and growth of the Ohio College of Dental Surgery. The book is divided into four parts:

I. The Cradle of Dental Education. This particular section is interesting because there is always a certain element of romance in history and especially early history, but it is also interesting because the author goes so far in determining the State of Ohio as the center in which dental education had its real birth. While there is probably no question but that the Baltimore College of Dental Surgery, now an integral part of the University of Maryland, was the first dental college to be organized in the world, yet there is some controversy as to whether the first formal education in some manner was conceived in Ohio or in Baltimore. The author makes the statement that "Chapin A. Harris, M.D., D.D.S. who had studied dentistry with him (Dr. John Harris) at Madison and studied medicine under him in Bainbridge, Ohio . . . , became a co-founder of the College of Dental Surgery in Baltimore, Maryland, the first full College of Dentistry in the world," (p. 27). Thus it is in the author's mind that Bainbridge, Ohio may be the original center of dental education but in Baltimore the first full dental college was really organized.

In the latter part the author pays his respects to Dr. Wells who

1See Journal of the American College of Dentists, 10, 91, 1943.
gave to the world knowledge of the anesthetic properties of nitrous oxide, of others who were interested in the same subject and finally of men who gave their knowledge to the development of the mechanics of dentistry including the introduction of rubber by Good-year, copper amalgam by Dr. Allen of Cincinnati, of plaster of Paris by Drs. Westcott, Dwinella and Dunning culminating in 1844 with the birth of the S. S. White Dental Company by Dr. Samuel S. White.

II-III. Part II is given to the early history of dental societies and periodicals while Part III is devoted to the early history of dental legislation, both within the States and by the Federal Government.

IV. Part IV is given wholly to the history of dentistry within the state of Ohio, pertaining particularly to the Ohio State College of Dental Surgery.

The book is interesting to read and as the author states, "No one can delve into the early history of American dentistry, walk day by day with such noble pioneers as Drs. John Harris, Chapin A. Harris, Horace H. Hayden, Levi S. and Eleazar Parmley, James Taylor, B. P. Aydelotte, Melancthon Rogers, John Allen and Jonathan Taft, listen to their burning appeals, mark their ability, sincerity and strength of character . . . without acquiring a profound respect for the talents, courage and faith of those pioneers, and a deeper pride in the profession of dentistry."

When the real history of dentistry is written and the philosophy of the profession is finally determined, this book will be one that will make some contribution to that end. Dentistry is still very young. We have only 100 years back of us. That is not enough to be traditional but it is far enough back that men must begin to accumulate the things which have taken place as Dr. Dalton has done in this instance so that when the time does come, some man or men can get these facts and fancies together and present to us a true and complete factual history of dentistry.
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